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EXAMINER

FALASCO, LOUIS V

ART UNIT PAPER NUMBER

1773

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/767,201	Applicant(s) YAMAMOTO ET AL.	
	Examiner Louis Falasco	Art Unit 1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>02/22/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

PAPERS RECEIVED

1. The Amendment and Remarks filed 12/15/06 and IDS filed 02/22/06 are acknowledged.

CLAIMS

2. The claims are: 1 to 27. All claims remain under consideration.
3. The rejections made in the previous Office Action have been withdrawn in response to applicants arguments and Double Patenting rejections below have been made.

Claim Rejections - Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1 to 27 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 to 25 of U.S. Patent No. 6040029.

U.S. Patent No. 6040029 claims the invention encompassing, under the doctrine of obviousness-type double patenting, the instant claims 1 to 27. U.S. Patent No. 6040029 claims a substrate with the specific SiO₂ and Al₂O₃ amounts of the instant claims (claims 7-10); rare earths (claims 1-25); the light transmittance (claim 8); free of a compressive strengthening layer (claims 14-16), though all of these are not present in any single claim of Patent No. 6040029 based in the specification they would have obviously been brought together for a substrate claimed as evident from the disclosure of U.S. Patent No. 6040029 at col. 3 lns 4-25, col. 8 lns 50-58 and demonstrated in Fig. 4 and Fig. 5, illustrating these together.

As regard the dependent instant claims 2 to 6: the particles are claimed in U.S.

Patent No. 6040029 a claims 3, 4, 10, 13, 16, 19, and 22.

As regard the dependent instant claim 7 the hardness the claims of U.S. Patent No. 6040029 the obviousness is based on the disclosure of hardness at Table 5 and in col. 8 lns 50-58.

As regard the dependent instant claim 8 the expansion coefficient, the claims of U.S. Patent No. 6040029 are based on the disclosure of expansion coefficient shown at Fig. 2 and in col. 2 lns 60-62 and col. 7 lns 26-29.

As regard the dependent instant claim 9 the Ln_2O_3 is claimed in claims 1 to 10, 15, and 18.

As regard dependent instant claim 10-15: recording is claimed at claims 6 and 21-25.

5. Claims 1 to 27 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 to 19 of U.S. Patent No. 6136401.

U.S. Patent No. 6136401 claims the invention encompassing, under the doctrine of obviousness-type double patenting, the by the instant claims 1 to 27. U.S. Patent No. 6136401 claims a substrate with a rare earth composition claimed at claims 1-19; the light transmittance is claimed at claims 8 and 13. Patent No. 6136401 does not claim the instant free of a compressive strengthening layer nor the specific SiO_2 and Al_2O_3 . Though not claimed in U.S. Patent No. 6136401 being free of a compressive

strengthening layer and the specific SiO_2 and Al_2O_3 would have been obvious based in the disclosure of U.S. Patent No. 6136401 at col. 8 lns 50-58 and would have obviously been combined in the substrate with the rare earth composition and the light transmission level as evident based on the disclosure of U.S. Patent No. 6136401 at col. 4 lns 8-19 and Table 1, the diagram having them, Fig. 4 and 5. illustrates these incorporated in the substrate claimed.

As regard the dependent instant claims 2 to 6: the particles are claimed in claims 2, 3, and 12.

As regard the dependent instant claim 7: the hardness the claims of U.S. Patent No. 6040029 the obviousness of the hardness is based on the disclosure of hardness in Table 5 and col. 8 lns 50-58.

As regard the dependent instant claim 8: the expansion coefficient, the claims of U.S. Patent No. 6040029 the obviousness of the expansion coefficient is based on the disclosure of expansion coefficient shown in Fig. 2 and col. 2 lns 60-62, col. 7 lns 26-29.

As regard the dependent instant claim 9 the Ln_2O_3 : the obviousness of including the Ln_2O_3 is based on the disclosure at col. 4 lns 8-18 having this in the substrate composition.

As regard the dependent instant claims 10-15 the recording: the recording means is claimed at claims 13, 18 and 19 and based on the disclosure at Fig. 8 of being usable together.

As regard the dependent instant claims 18-27 having Ra: the obviousness the Ra is based on the disclosure at Table 7 showing this in the substrate.

6. Claims 1 to 7 and 9 to 27 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 to 15 of U.S. Patent No. 6801397.

U.S. Patent No. 6801397 claims the invention encompassing, under the doctrine of obviousness-type double patenting, the instant claims 1 to 27.

U.S. Patent No. 6801397 claims a substrate with the specific SiO_2 and Al_2O_3 amounts of the claims at claim 3; rare earths at claims 1-15; free of a compressive strengthening layer at claims 1-8 and 13. U.S. Patent No. 6801397 does not claim a light transmission level. However, based on the disclosure at Fig. 2 and Table 2 showing the light transmission level would have been obvious as a matter of routine optimization with the substrate claimed with the instant components.

As regard the dependent instant claim 7: the hardness the claims of U.S. Patent No. 6040029 would have been obvious based on the disclosure of hardness at Table 3-1.

As regard the dependent instant claim 9: the Ln_2O_3 is claimed in claims 1-15.

As regard the dependent instant claim 10-15: recording is claimed at claim 10 and is based on the disclosure at col. 12 lns 27, 28 Fig. 5 and Example 2 usable together.

As regard the dependent instant claims 18-27 the Ra would have been obvious based on the disclosure at col. 12 ln 48 to col. 13 ln 13 and Tables 2, 3-1 shown for the substrate.

7. Claims 1 to 7 and 9 to 27 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 to 13 of U.S. Patent No. 6577472.

U.S. Patent No. 6577472 claims the invention encompassing, under the doctrine of obviousness-type double patenting, the instant claims 1 to 27.

The specific SiO_2 and Al_2O_3 amounts of the claims appear at claim 4; rare earths appear in claims 1-13; free of a compressive strengthening layer is claimed in claims 1-13. U.S. Patent No. 6577472 does not claim the light transmission level of the instant claims. However, the claims are based on the disclosure at Fig. 2 and Table 2 teaching adopting the light transmission level would have been obvious as a matter of routine optimization or choice with the substrate.

As regard the dependent instant claim 7: the hardness the claims of U.S. Patent No. 6040029 are based on the disclosure of hardness in Table 3-1 usable together with the substrate components.

As regard the dependent instant claim 9: the Ln_2O_3 is claimed in claims 1-13.

As regard the dependent instant claim 10-15: recording though not claimed in U.S. Patent No. 6577472 the claims based on the disclosure and would have been

obvious to include as shown at col. 12 lns 27, 28 Fig. 5 and Example 2 of the disclosure showing these usable together.

As regard the dependent instant claims 18-27: Ra is claimed in claims 7 and 13 and as based on the disclosure at col. 12 ln 48 to col. 13 ln 13 and Tables 2, 3-1.

8. Claims 1 to 7 and 9 to 27 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 to 11 of U.S. Patent Application 10/916,439 (corresponding to U.S. Patent Application Publication No. 2005/0013048).

U.S. Patent Application 10/916,439 claims the invention encompassing, under the doctrine of obviousness-type double patenting, the instant claims 1 to 27. The specific rare earths are claimed in claims 1-11; the light transmission level is claimed in claim 10; free of a compressive strengthening layer is claimed in claims 1, 3, 4, 9. U.S. Patent Application 10/916,439 claims do not include the SiO_2 and Al_2O_3 however the claims of Patent Application 10/916,439 are based on disclosure would have been obvious since they are shown to be included with the substrate at paragraph [0016], [0052] and Tables 1 and 3-1.

As regard the dependent instant claim 7: the hardness the claims of U.S. Patent Application 10/916,439 are based on the disclosure of the instant claimed hardness and would have been obvious as evident from there inclusion at Table 3-1.

As regard the dependent instant claim 9: the Ln_2O_3 is claimed in claim 5.

As regard the dependent instant claim 10-15: recording though not claimed in U.S. Patent Application 10/916,439 the claims are based on the disclosure and would have been obvious as event from there inclusion with the substrate at paragraphs [0060-0061] Fig. 5 and Example 2.

As regard the dependent instant claims 18-27: Ra though not claimed in U.S. Patent Application 10/916,439 the claims are based on the disclosure and would have been obvious as event from there inclusion with the substrate in paragraphs [0014] [0019] [0064] and illustrated at Tables 2, 3-1 and 4.

9. Claims 1 to 7 and 9 to 27 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent Application 11/268,566 (corresponding to U.S. Patent Application Publication No. 2006/0034015).

U.S. Patent Application No. 11/268,566 claims the invention encompassing, under the doctrine of obviousness-type double patenting, the instant claims 1 to 27. In U.S. Patent Application No. 11/268,566 claims a substrate with rare earths and free of a compressive strengthening layer at claim 1. The specific SiO_2 and Al_2O_3 is not claimed in U.S. Patent Application No. 11/268,566 and the light transmittance is not claimed in U.S. Patent Application No. 11/268,566. However the claims are

based on the disclosure of the instant claimed SiO_2 and Al_2O_3 for the claimed substrate at paragraphs [0016], [0052] illustrated at Tables 1 and 3-1 and the transmission in the disclosure at Fig. 2 and Table 2 for the substrate.

As regard the dependent instant claim 7: the hardness of this claim would have been obvious based on the disclosure of hardness for the substrate composition illustrated at Table 3-1.

As regard the dependent instant claim 9: including the Ln_2O_3 of this claim would have been obvious from U.S. Patent Application No. 11/268,566 based on the disclosure of including Ln_2O_3 in the substrate composition at paragraph [0016] of U.S. Patent Application Publication No. 2006/0034015.

As regard the dependent instant claim 10-15: the recording of these claim would have been obvious from U.S. Patent Application No. 11/268,566 based on the disclosure of including recording means at paragraphs [0060-0061] Fig. 5 and Example 2 of U.S. Patent Application Publication No. 2006/0034015.

As regard the dependent instant claims 18-27: the R_a of these claim would have been obvious from U.S. Patent Application No. 11/268,566 based on the disclosure of conventionally including the R_a for the substrate at paragraphs [0014] [0019] [0064] and Tables 2, 3-1 and 4 of U.S. Patent Application Publication No. 2006/0034015.

10. Claims 2 to 6 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of any one of U.S. Patent Application No. 11/268,566, U.S. Patent Application 10/916,439, U.S. Patent No. 6577472 or U.S. Patent No. 6801397 as applied to claims 1 to 7 and 9 to 27, taken in view of **Nakagawa et al** (US 5093173).

U.S. Patent Application No. 11/268,566, U.S. Patent Application 10/916,439, U.S. Patent No. 6577472 or U.S. Patent No. 6801397 do not claim a glass substrate with particles. However, **Nakagawa et al** teaches the convention of a glass substrate with particles (as illustrated in Fig. 1 and taught at col. 7 lns 55-57).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to adopt the **Nakagawa et al** convention of a glass substrate with particles in the claims of any one of U.S. Patent Application No. 11/268,566, U.S. Patent Application 10/916,439, U.S. Patent No. 6577472 or U.S. Patent No. 6801397 for the purpose of increasing the durability of recording media. One skilled in the art would have been motivated to adopt the **Nakagawa et al** convention of a glass substrate with particles with the expectation of increasing media resistance to wear – see col. 10 lns 34-36.

11. Claim 8 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of any one of U.S. Patent Application No. 11/268,566, U.S. Patent Application 10/916,439, U.S. Patent

No. 6577472 or U.S. Patent No. 6801397 as applied to claims 1 to 7 and 9 to 27, taken in view of **Kitaura et al** (US 5681632).

U.S. Patent Application No. 11/268,566, U.S. Patent Application 10/916,439, U.S. Patent No. 6577472 or U.S. Patent No. 6801397 do not claim a expansion coefficient for the glass substrate. However, **Kitaura et al** teaches the expansion coefficient (col. 3 lns 12, 13, 30-33).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to adopt the expansion coefficient of **Kitaura et al** in the claimed inventions of any one of U.S. Patent Application No. 11/268,566, U.S. Patent Application 10/916,439, U.S. Patent No. 6577472 or U.S. Patent No. 6801397 for the purpose of improving the optical properties by matching the expansion of recording media layers. One skilled in the art would have been motivated to adopt the **Kitaura et al** with the expectation of improving the repeated reproduction of the media – see col. 4 lns 45-53.

OTHER REFERENCES

Yamamoto et al (US 6150027) has been cited of interest since it was cited in the parent application.

CONCLUSION

The claims are 1 to 27.

- No claim has been allowed.

INQUIRES

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Louis Falasco, PhD whose telephone number is (571)272-1507. The examiner can normally be reached on M-F 10:30 - 7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol D. Chaney, PhD can be reached at (571)272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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02/06


CAROL CHANEY
SUPERVISORY PATENT EXAMINER